

Will Your Product Last Outdoors?

Arizona Weathering Exposures



45° Standard Direct Exposure

Q-Lab Weathering Research Service

Q-Lab Weathering Research Service provides internationally recognized outdoor weathering at benchmark locations in Florida and Arizona. Natural outdoor exposures give the most realistic prediction of product performance and can help you avoid unexpected failures.

Experienced and reliable

Q-Lab provides the highest quality contract weathering testing services. Our first natural weathering site opened in 1959.

Instant credibility

When Q-Lab does your testing, the results have instant credibility with your customers and colleagues. Q-Lab conducts all exposure tests and evaluations in accordance with appropriate test methods from ASTM, ISO, BSI, DIN, JIS, SAE, and other recognized organizations.

Low cost

Q-Lab's state-of-the-art exposure and material evaluation services are available at a surprisingly affordable price.

Q-Lab Weathering Research Service
305-245-5600 www.q-lab.com



Black Box Direct Exposure

Arizona Desert Weathering

- very high-intensity sunlight
- very high annual UV
- high year round temperatures
- large day-night temperature variation
- very low atmospheric moisture



Special Parts Mounting, Direct Exposure

Excellent Climate For Testing

- sunlight UV stability
- heat aging
- coefficient of thermal expansion
- material durability in low relative humidity environments



AIM Box Exposure

Arizona Benchmark Weathering

- internationally recognized location for material weatherability
- natural exposures are the most realistic and provide a benchmark for accelerated weathering data

The Most Trusted Name in Weathering



Why Arizona?

Your product is used in a number of environments. Shouldn't your weathering program be as comprehensive as possible?

Q-Lab Arizona's desert climate is characterized by very intense sunlight, very high temperature, minimal rainfall, and very low humidity. Arizona desert exposures can provide a different - in some ways harsher - exposure environment than Florida subtropical tests, creating a unique and particularly challenging exposure environment. Compared with Florida, Arizona is much hotter and receives about 20% more annual total solar energy (8004 MJ/m²) and total UV energy (334 MJ/m²).

Arizona weathering can be particularly damaging to heat sensitive materials and composites. During the Arizona summer, air temperature may reach 115°F (46°C) and a black body sensor may reach over 160°F (71°C). In addition to extremely high daytime temperatures, Arizona's desert nights are typically fairly cold. The extreme day-to-night temperature variation can cause concerns for materials, composites or assemblies with expansion and contraction issues.

A typical standard test in Arizona will incorporate exposure at an angle that is matched as closely as possible to the end-use positioning of the material. Regularly scheduled evaluations provide data about the progress of the test material and allow for more reliable predictions. Because the test is conducted outdoors, the results are real-world. This provides a level of trust in Arizona exposure results that is not always possible with laboratory testing.

Shouldn't your weathering program be as comprehensive as possible? For more information on how to build a complete and thorough weathering test program that includes benchmark Arizona exposures, call a Q-Lab technical expert today.



The brutal Arizona climate typically includes about 20% more sunlight than Florida exposures.

